Cristina Malcolmson. *Studies of Skin Color in the Early Royal Society: Boyle, Cavendish, Swift*. Literary and Scientific Cultures of Early Modernity. Farnham: Ashgate, 2013, xii + 233 pp., 3 illustr., £ 60.00.

As epigraphs to her introduction, Cristina Malcolmson quotes passages from three fairly diverse books: Robert Boyle's *Experiments and Considerations Touching Colours* (1664), Margaret Cavendish's science fiction-cum-fantastic voyage *The*

Blazing World (1666) and Francis Moore's *Travels into the Inland Parts of Africa* (1738). These works demarcate the scope of her study which looks at changing discourses on colour in the late seventeenth and early eighteenth centuries, in the contexts of natural philosophy, early modern theories of the origin of races, the implication of the Royal Society's process of information gathering in colonialism and slavery, and finally, literary representations of and satire on these issues. Drawing on sociological studies of the history of science in the wake of Bruno Latour, Steven Shapin and Simon Schaffer, Malcolmson explores the links between such seemingly diverse practices as the study of colour through a microscope, descriptions of ethnic differences in travel reports, and the depiction of alternative worlds and their inhabitants in fiction. It is one of the strengths of her enquiry to show the institutional, epistemological and economic enmeshments between these seemingly separate domains.

At a first glance, Boyle's investigations of the physics of colour seem to be a far cry from Moore's description of 'negroes' as "a Race of People who appear to be different from the rest of Mankind" (Moore qtd. in Malcolmson, 1). In fact, Boyle dedicates a chapter to the possible causes of black skin colour; from the beginning, the experimental method which looks at the physical causes of colour is linked to an early anthropological interest in difference. Boyle's own position is both tentative and complex: devoted to the Baconian method, that is, the gathering of evidence rather than developing a theory of his own, he repudiates traditional explanations of black skin colour such as the curse of Ham and the climate theory – the belief that the outward appearance is determined by the interaction between geography and the four humours and hence, skin colour is changeable, dependent on locality – as well as contemporary propositions about the creation of men before Adam. Through his particular interest in black skin rather than other hues, however, Boyle "suggests that he considers it to be a deviation from the norm" (35). Together with other practices of the Royal Society, such as sending out standardised sets of questions and collecting 'human rarities' – Malcolmson discusses the 'skin of a Moor' exhibited in the Society's museum – Boyle's curiosity about blackness contributes to framing dark-skinned population groups as objects of scientific enquiry and, eventually, colonial subjection. At a time when the idea of race was still unstable and 'scientific' racism had not yet been developed, the research frameworks proposed by the Royal Society invited the production of information about population groups in terms of innate differences, and it sought this kind of information specifically regarding dark-skinned peoples. As Malcolmson argues, the Royal Society's "system of global data collection" (7) directed explorers, naturalists, traders and diplomats to study the physical differences of foreign populations, and in this way prepared the ground for the emergence of racial theories.

In the first three chapters, Malcolmson examines the various practices of data-gathering and collecting brought to bear on the study of skin colour, the debates in the Royal Society about this issue – mainly, climate theory vs early polygenetist theories of innate differences – as well as the engagement of many of the Society's members in colonial institutions and the slave trade. In chapter 4, she turns to Margaret Cavendish's critique of and satire on Boyle's claim to mastery over nature, deployed in her main philosophical treatise *Observations upon Experimental Philosophy* (1666) and the accompanying piece of fiction *The Blazing World*, the description of a world attached at the North Pole to our own planet and governed by an Empress keenly interested, as was Cavendish herself, in natural philosophy. The strange inhabitants of this newly discovered world literally form a rainbow nation – their skins are grass-green, scarlet, orange, and so on, while their bodies equally deviate from an anthropomorphic pattern – and thus dislodge the Royal Society's fascination with blackness. In addition, Cavendish challenges many of the Society's tenets, especially its privileging of anthropocentric, androcentric and Eurocentric forms, or indeed monopoly, of science. The bear-men, geese-men and worm-men inhabiting the Blazing World form scientific societies of their own which, while in need of the Empress's benevolent correction, produce a more effective kind of knowledge than their real-world counterparts. As Malcolmson convincingly shows, Cavendish is intimately familiar with Boyle's work on colour and pokes fun at his arguments, down to parodies of his sentence structure. By depicting scientists as lice-men and bear-men, Cavendish efficiently reverses the perspective: "Boyle's fascination with differences in skin color, a fascination that some readers might also feel when they discover the people of color and hybrids in the Blazing World, is transformed into an awareness of the strangeness of English scientists" (128). This reversal includes gender positions: in *The Blazing World*, a female natural philosopher – outside fiction, barred from membership in the Royal Society – is the subject of the scientific gaze, while male philosophers are reduced to its rather pitiable and ridiculous objects.

Chapter 5 discusses the widely held view that a child's skin colour could be influenced by the mother's imagination, a sensitivity attributed only to European women. In consequence, "the thought and sexuality of white women were defined as in need of policing, whereas non-white women were associated with an alleged promiscuity that served the colonial interests of slave-owners and European travelers" (26). This theory was extensively discussed in the Royal Society, as documented in Boyle's writings and the Society's *Philosophical Transactions*. In chapter 6, Malcolmson turns to her second example of fictional engagements with the Royal Society, Jonathan Swift's *Gulliver's Travels* (1726). Through his reversals of proportion and perspective, Swift satirises the difference between the rational and refined European and his or her seemingly less civilised

counterpart. In particular in the fourth book, European anxiety about skin colour and an emerging consciousness of race difference is highlighted through Gulliver's frantic attempts to distinguish himself from the dark-skinned, ape-like Yahoos. Through the progressive revelation that such a distinction, the effect of "the categorizing gaze of the naturalist" (178), is untenable, Swift links his critique of an emerging English consciousness of racial superiority, and of British colonial expansion, with a satire of the naturalist-traveller gathering information on dark-skinned peoples.

In a brief conclusion, Malcolmson discusses methodological questions and justifies, against the claim of Atlantic studies to always consider the interchange between local and European knowledge, her own exclusive focus on the Royal Society and its critics. As she has indeed shown, the analysis of European institutions and the paradigmatic figure of the 'gentlemanly natural philosopher' can yield many insights into the conditions, and limitations, of European knowledge production. *Studies of Skin Color in the Early Royal Society* draws on a wide range of archival material as well as published primary and secondary sources. Despite this impressive wealth of sources and the many aspects touched upon, the argument is concise and economical. While the main texts by Boyle, Cavendish and Swift have already received considerable attention in recent histories of knowledge, their treatment of skin colour has been fairly neglected. In her elegant study, Cristina Malcolmson sheds new light on the early history of scientific racism and the long-term effects of seemingly innocuous methods of information-gathering.

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